

EXECUTIVE RECOMMENDATION

Blue Plains WWTP: Biological Nutrient Removal - No. 973817

Category: **WSSC**
 Agency: **W.S.S.C.**
 Planning Area: **Countywide**
 Relocation Impact:

Date Last Modified: **December 30, 2004**
 Previous PDF Page Number: **22-5-(05 App)**
 Required Adequate Public Facility: **No**

EXPENDITURE SCHEDULE (\$000)

Cost Element	Thru		Est. 6 Year								Beyond	
	Total	FY04	FY05	Total	FY06	FY07	FY08	FY09	FY10	FY11	6 Years	
Planning, Design and Supervision	4,595	2,408	154	2,033	498	981	506	48	0	0	0	0
Construction	29,544	14,010	1,091	14,443	3,536	6,970	3,596	341	0	0	0	0
Other	177	0	12	165	40	80	41	4	0	0	0	0
Total	34,316	16,418	1,257	16,641	4,074	8,031	4,143	393	0	0	0	0

FUNDING SCHEDULE (\$000)

Municipal (WSSC only)	942	451	34	457	112	220	114	11	0	0	0	0
State Aid	17,160	8,209	629	8,322	2,037	4,016	2,072	197	0	0	0	0
WSSC Bonds	16,214	7,758	594	7,862	1,925	3,795	1,957	185	0	0	0	0

COMPARISON (\$000)

	Total	Thru		Est. 6 Year								Beyond	Approp.
		FY04	FY05	Total	FY06	FY07	FY08	FY09	FY10	FY11	6 Years	Request	
Current Approved	32,877	17,859	1,743	13,275	6,594	5,012	1,669	0	0	0	0	0	0
Agency Request	32,887	17,873	1,775	13,239	6,588	4,988	1,663	0	0	0	0	6,588	
Recommended	34,316	16,418	1,257	16,641	4,074	8,031	4,143	393	0	0	0	4,074	
CHANGE				TOTAL	%	6-YEAR	%					APPROP.	
Agency Request vs Approved				10	0.0%	(36)	(0.3%)			6,588	0.0%		
Recommended vs Approved				1,439	4.4%	3,366	25.4%			4,074	0.0%		
Recommended vs Request				1,429	4.3%	3,402	25.7%			(2,514)	(38.2%)		

Recommendation

APPROVE WITH MODIFICATIONS

Comments

The project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant capital projects. The Executive recommends changes in the project estimates to align with amounts proposed by the District of Columbia Water and Sewer Authority (WASA).

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
973817	S-22.08	Change

2. Date: October 1, 2004

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

5. Agency: **WSSC**

3. Project Name: Blue Plains WWTP: Biological Nutrient Removal

4. Program: **Sanitation** 6. Planning Area: Bi-County**B. Expenditure Schedule (000's)**

Cost Elements	(8) Total	(9) Thru FY '04	(10) Estimate FY '05	(11) Total 6 Years	(12) Year 1 FY '06	(13) Year 2 FY '07	(14) Year 3 FY '08	(15) Year 4 FY '09	(16) Year 5 FY '10	(17) Year 6 FY '11	(18) Beyond 6 Years
Planning, Design & Supervision	5,371	3,812	346	1,213	542	542	129				
Land											
Site Improvements & Utilities											
Construction	27,368	14,061	1,411	11,896	5,981	4,397	1,518				
Other	148		18	130	65	49	16				
Total	32,887	17,873	1,775	13,239	6,588	4,988	1,663				

C. Funding Schedule (000's)

WSSC Bonds	15,538	8,445	838	6,255	3,113	2,357	785				
State Aid	16,445	8,937	888	6,620	3,294	2,494	832				
City of Rockville	904	491	49	364	181	137	46				

D. Description & Justification**DESCRIPTION**

This project includes funding for WSSC's share of the Blue Plains Biological Nitrogen Removal Pilot Project and BNR Permanent Facility design and construction. This project is stipulated in the 1995 Consent Decree signed by the District of Columbia and the United States Department of Justice.

Service Area Bi-County Area

Capacity 370 MGD

JUSTIFICATION**Plans & Studies**

Porter, MacNamee & Seely, 1992 Study; Civil Action No. 90-163 and Civil Action No. 84-2842 JGP; the WASA Master Plan (1998); and the DC-WASA Proposed FY 2003 - FY 2012 Capital Improvement Program (10/16/03).

Specific Data

The Pilot Project was a phased, four year, half-plant trial. Portions of the nitrification basins were converted to anoxic zones and methanol added as the carbon source. The Pilot Project was not carried out for the third and fourth years as the process proved to be successful during the first two years. The Consent Decree acknowledged that applying this technology to the Blue Plains WWTP was experimental. Based on the results of the pilot project, permanent BNR facilities are being designed and constructed at Blue Plains. These facilities include modifications to the nitrification basins, methanol storage and feed facilities, a control building, addition of fine bubble diffusers, and improvements to the nitrification facilities (Phase II).

Cost Change

Not Applicable.

STATUS Various Stages of Planning & Design**OTHER**

The project scope has remained the same.

Project History: This project was first included in the FY96 CIP and represents WSSC's share of costs for Biological Nitrogen Removal (BNR) at Blue Plains. The initial cost for this project, estimated at \$12.1 million, reflected only the cost of the pilot program to determine the efficacy of methanol addition for BNR. Upon successful completion of the pilot program, a consent decree required that permanent facilities were to be constructed. The expenditure schedule reflects the cost of permanent BNR facilities. Phase I and portions of Phase II are complete. The Maryland Department of the Environment (MDE) has, by agreement, committed to providing 50% grant funding in the amount shown. However, MDE has not yet agreed that all of the Phase II costs are grant eligible.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff		
	Other		
Facility Costs	Maintenance		
	Debt Service	1201	09	
Total Costs.....		1201	09	
Impact on Water or Sewer Rate.....		3¢	09	

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 96
Date First Approved	FY 96
Initial Cost Estimate	12,189
Cost Estimate Last FY	32,877
Present Cost Estimate	32,887
Approved Request, Last FY	1,743
Total Expenditures & Encumbrances	17,873
Approval Request FY 06	6,588
Supplemental Approval Request Current FY (05)	

G. Status Information

Land Status: Not applicable
 % Project Completion: C-57%
 Est. Completion Date: FY2008

H. Map Map Reference Code:**MAP NOT AVAILABLE****AGENCY REQUEST**

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 22.08

Project Name: Blue Plains WWTP: Biological Nutrient Removal

COORDINATION

District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% Environmental Regulation.